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# Two-Year Color Enhancement Study at the University of Dayton

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DAYTON, Ohio, November 25, 1974 --- Colors are easier to distinguish than various shades of gray.

That principle underlies a two-year Color Enhancement Study to be done by an interdisciplinary team in the University of Dayton School of Engineering, under a contract with the 6570th Aerospace Medical Research Laboratory of Wright-Patterson Air Force Base for nearly $60,000.

The project's main investigator, Professor Donald E. Lewis (Electrical Engineering), to illustrate what color enhancement could do, points to the black and white radar scanners used on TV weather shows.

Different intensities of a storm are displayed only in varying shades of gray. "Color enhancement equipment, however," notes Professor Lewis, "could much more clearly display energy densities."

Various energy levels can be arbitrarily assigned pseudo-colors. The energy level of a tornado scanned by radar might thus be assigned an easily visible color like red.

Aiding Professor Lewis will be Professors F. Gerard Albers (Aerospace Engineering) and Thomas V. Brown (Psychology). Support efforts will also be required from staff and students.

The study will be divided into two phases, according to Professor Albers, with emphasis throughout the project on the relationship of man and machine.

"In the first phase," says Professor Albers, "we will conduct a study of color enhancement activities which show the most promise. After selecting a potential method or methods, we will, in the second phase, construct equipment and run studies on individual operators to decide on a statistical basis how the potential methods hold up in a man-machine environment."

The contract is an outgrowth of work done during the summer with some government-furnished equipment and of the development of Engineering's Man-Machine Laboratory.

During the summer program, an improved method of programming the color enhancement equipment was developed and demonstrated by Drs. Albers and Lewis.

Planning for the man-machine laboratory began over one year ago, with the formation of a task group to study the requirements for such a research and development capability. The group concluded that the future evolution of various technical and social systems will depend on significant improvements in the interactions between man and his machines.

The work to be done in the laboratory will be structured to accommodate faculty-student teams of researchers, in order to stimulate the growth of the new doctoral programs in engineering at the University. Experimental research facilities now available in the laboratory include digital computer terminals, a self-contained hybrid computer, a nuclear scanner with field-sequential color enhancement, and standard research equipment and instrumentation.